## **ABSTRACT**

A novel production method of quinolinecarbaldehydes (IV), which includes reacting aminobenzophenones (I) with  $\beta$ - 5 ketoaldehyde derivative (II) in the presence of an acid to give quinolinecarbaldehyde derivative (III), and then hydrolyzing the quinolinecarbaldehyde derivative and a method of producing novel  $\beta$ -ketoaldehyde derivative (II-1), which includes reacting metal alkoxide compound (V) with diol derivative compound (VI) in the presence of an acid.

30 HX-R<sup>12</sup>-YH (VI)